On the Road

THE RELIEF ROUTE — SR 1

Issue 18 — DELAWARE ROUTE 7 TO US ROUTE 113 — Fall 1995

Wetlands permit signals go-ahead for Phase II

A major milestone in the Relief Route's progress is about to be reached. In the early Fall, the US Army Corps of Engineers (COE) will grant a "Section 404 Permit" allowing the last portion of the Relief Route, Phase II, to be constructed. Phase II includes the Odessa/Townsend Section and the Puncheon Run Connector. When constructed, these sections will complete the 46-mile Relief Route. Phase I of the Relief Route received its Section 404 Permit five years ago, in the Fall of 1990.

Under Section 404 of the Clean Water Act, the COE regulates construction activities in designated "Waters of the United States," which include wetlands. Any activities in these waters, including discharge, filling, clearing or excavation, require a permit from the COE. When a Section 404 Permit is issued it means that the project has proven that it has avoided and minimized impacts on wetlands wherever possible. Where this has not been possible, a "mitigation plan" is developed as part of the permit agreement to replace the lost wetlands.

There are several other agencies, both federal and state, that are involved in the permitting process. Federal agencies include the United States Environmental Protection Agency (EPA), the United States Department of the Interior/Fish and Wildlife Service, and the National Marine Fisheries Service. The EPA oversees the process, and can exercise veto power over any permit decisions made by the COE.

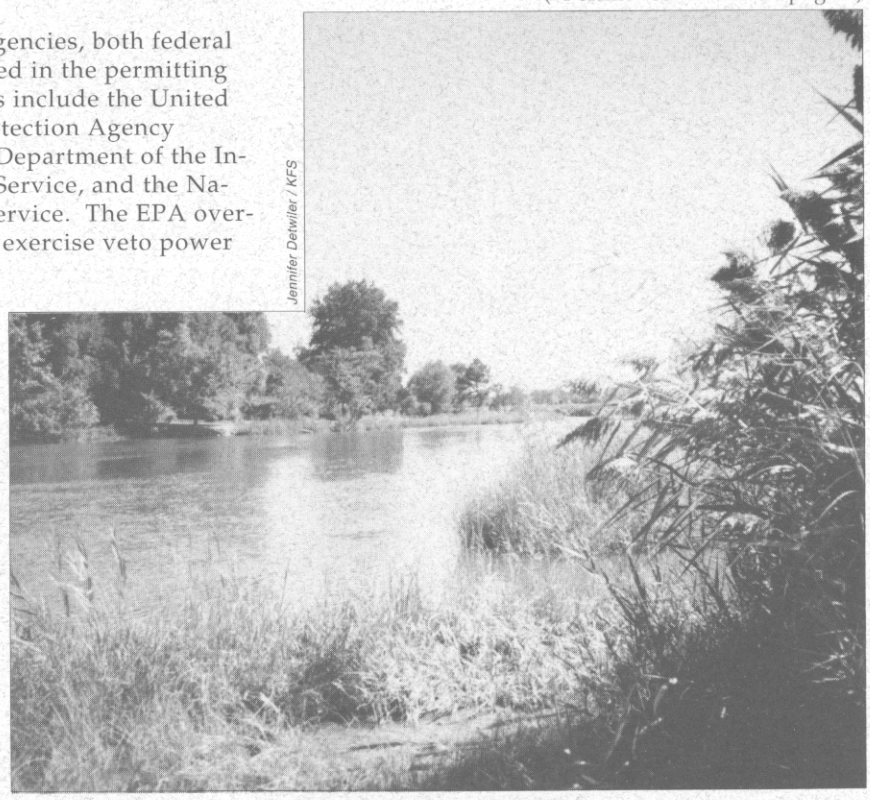
The State of Delaware, through the Delaware Division of Natural Resources and Environmental Control (DNREC), has its own regulations and permits for constructing in wetlands. The Relief Route project requires a "Type II State Wetland Permit" because it involves impacts to more than one acre of wetlands.

Environmental importance

Not only are wetlands of commercial, aesthetic, and recreational importance, they are also important for environmental quality. Wetlands slow the speed of water to reduce flood damage and help control soil erosion by trapping sediments. Wetlands also store and purify ground water by filtering out pollutants. Wetlands support fish, shellfish and wildlife habitats and provide vegetation for grazing livestock.

In 1990, a joint "Memorandum of Agreement" between the COE and the EPA was issued. This agreement states that the two agencies will work together to foster the nation's goal of "no net loss" of remaining wetlands. The agreement requires that the project's planning and design process go through a specific sequence intended to do as little harm as possible to wetlands. The steps taken are: evaluation, avoidance, minimization, and mitigation.

("Permit" continues on page 2)



Jennifer Detwiler / KFS

Sixteen percent of the State of Delaware is wetlands.

Delaware Department of Transportation

Anne P. Canby
Secretary

On the Road *is published periodically by the Delaware Department of Transportation and is the official newsletter of SR 1, the US Route 13 Relief Route.*

C&D CANAL BRIDGE PUBLIC WORKSHOP

New traffic patterns to and from the new C&D Canal Bridge and St. Georges will be presented at a Public Workshop on Wednesday, October 11, 1995 from 4 to 8 PM at the Gunning Bedford Middle School, Cox Neck Road, just north of St. Georges. DelDOT engineers and consultants will be on hand to explain the improvements in detail. For more information about the workshop or to receive your free copy of *On the Road* please write or call with your request.

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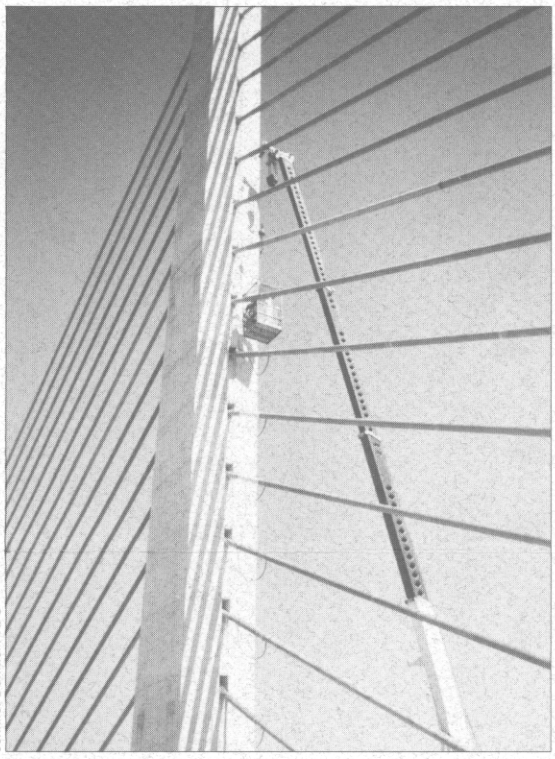


Jennifer Detwiler / KFS

The new C&D Canal bridge.

• C&D CANAL BRIDGE: High-profile landmark

Finishing touches are being put on the C&D Canal bridge. Workers are applying a final coat of bright yellow paint to the cables of the bridge. Combined with lights which will illuminate both the bridge deck and the bridge itself, the new crossing will become a high-profile landmark at night. DelDOT expects work to be completed in the Spring of 1996.

• ODESSA/TOWNSEND SECTION: Final design

Final-design work on the Odessa/Townsend section of SR 1—from Scott Run just south of the C&D Canal to Road 485 north of Smyrna—is nearing completion. Later in the Fall, DelDOT will conduct a public workshop to display the final design plans for this section. A special issue of *On the Road* will be mailed to announce the time and location of this "plans available" workshop.

• SMYRNA/DOVER SECTION: Wetlands creation

The four sites selected to become new wetlands are receiving final preparations. While previously a source of borrow for the section's construction, the sites are being excavated to their final grade. The excess soil is being brought to the Puncheon Run Connector site for future construction needs. During March and April of 1996, 180,000 trees will be planted to create the new forested wetlands.

("Permit" continued from page 1)

Evaluation and assessment

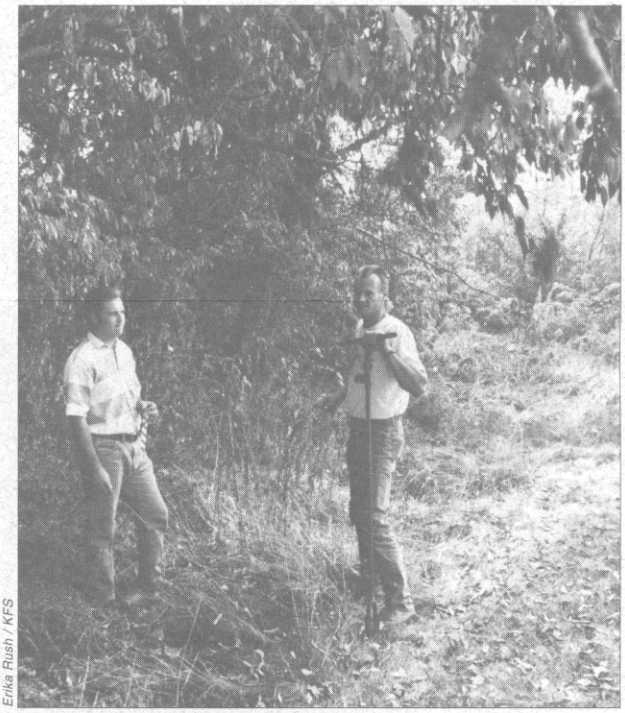
To prepare the Section 404 Permit application, wetlands experts studied aerial photographs of the highway corridor. Impacts were measured and analyzed wherever the Relief Route was proposed to cross a wetland, and verified in the field. Within each crossing the type and amount of affected wetland was documented. This is important when wetlands replacement is proposed.

Avoidance, minimization and compensation

The final road design must show that it has avoided, and then reduced, the impacts to as many wetlands as possible. This is achieved by a variety of methods, including shifting the centerline of the road or changing its grade level to avoid rare plants and unique natural features.

When this process is completed, remaining lost wetlands must be recreated elsewhere. This last step is called "compensatory mitigation." DelDOT is committed to, at least, replacing each acre of lost wetlands with an acre of recreated wetlands. Some impacts occur during construction, but since these are only temporary, mitigation is not required. Impacts to wetlands which are permanent, however, must be mitigated. New wetlands are created to replace the ones permanently impacted.

As directed by the agreement between the COE and EPA, the created wetlands will be of the same type as the ones lost and will be located in the same watershed. This is important because it will enhance an existing wetland system and make its success, as well as the overall success of the Relief Route, most likely. ■



Erika Rush / KFS

Jim McCulley and Craig Smith, of Environmental Consultants, Inc., delineated the wetlands for Phase II of the Relief Route.

One PERSPECTIVE

"One Perspective" is a regular feature of* On the Road. *The interviews presented here provide readers with a personal, behind-the-scenes look at the planning, design and construction activities associated with SR 1, the US Route 13 Relief Route.

For this Fall 1995 issue, "One Perspective" focuses on how wetlands mitigation sites are selected. Joe Wutka has been with DelDOT for 24 years, and has worked on the Relief Route project since 1982, coordinating all aspects of environmental review and compliance. He has been the Department's Location Studies and Environmental Engineer since 1978.

Joe Wutka (right) speaking with concerned citizens.

OTR: How are wetlands mitigation sites selected for the Relief Route project?

JW: Several factors shape the choices we make, though it is often difficult to strike a balance between these. First, we must comply with all applicable federal and state regulations. At the same time, the Department is obligated to the citizens of Delaware to save money on public-works projects without compromising safety or health. With projects of the Relief Route's scale, saving money can have tremendous results.

OTR: What regulatory requirements guide your selection?

JW: We are obligated to replace the type of wetland we impact, within the impacted watershed, and at a ratio which is determined with the regulatory agencies. Because only certain sites meet these regulatory requirements, our search for potential wetlands mitigation sites begins with an already-limited supply.

Once we have a rough idea of how many acres and what type of wetlands mitigation we need within each watershed, we first look at sites we already own to see if they meet these requirements. Sometimes DelDOT becomes a landowner through state laws which say that if we landlocked a parcel as a result of our project, we must offer to buy it from the owner. Since DelDOT is not in the business of owning property for the sake of owning property, using a property we are required to own, in as many ways as we can, makes good economic sense.

If we already own a parcel which fits our needs and the regulatory requirements for wetlands mitigation, the next question we ask is, "Can the parcel be used for fill—or borrow—needed to build the project?" Borrow is soil used to construct the road, which is excavated from one site and transported to the construction area. Not every parcel contains suitable borrow because only certain types of soil are right for construction. If DelDOT cannot provide borrow, the contractor must provide it at market cost. This increases the cost of construction, and also limits the number of contractors who can afford to bid on a contract. DelDOT can significantly reduce costs and also increase the number of potential bidders if we provide the borrow instead.

When the borrow operation is complete, the site can then be converted to a functioning wetland very cost effectively. Rather than starting from scratch, the borrow site's excavated area can be regraded to turn it into a wetland.

OTR: What regulatory changes affect creating mitigation sites?

JW: Wetlands mitigation policy is evolving at both the federal and state levels. This means that DelDOT must incorporate these changes as they happen. These policies are sometimes at odds with each other. Some policy changes have increased the number of sites which are eligible for wetlands mitigation, while others have limited the sites we can consider. For example, in 1990, the US Army Corps of Engineers (COE) changed the definition of wetlands to include previously farmed, or "prior converted" croplands. These are naturally wet areas which were drained before 1987 to enable the land to be farmed. According to the COE, such sites can be reestablished as functioning wetlands if they are no longer drained. Contrarily, the Delaware Department of Agriculture (DelAg) views this same parcel differently. DelAg's view is that until prior-converted cropland is actually developed for another purpose, it is still farmland, not wetlands.

("One Perspective" continues on page 4)

DID YOU KNOW?

- Phase I of the Relief Route (what's now open to traffic) impacted nearly 200 acres of wetlands; Phase II will impact almost 100.
- Construction of the Relief Route requires about six million cubic yards of borrow, or 600,000 truckloads.
- When DelDOT provides its own borrow, from a site that may then be used to create a wetland, the State can save nearly two-thirds off the normal cost for constructing the road bed. For example, during the construction of Phase I, the contractor's price for placing borrow from a DelDOT-owned site was only $2.56 per unit compared to the average unit price of $7.00.

("One Perspective" continued from page 3)

DelDOT follows the COE's definition and tries to use prior-converted croplands as mitigation sites first. In fact, this helps to preserve other farmland in the state for agricultural use, particularly if the prior-converted sites we use can provide suitable borrow for construction. Otherwise, contractors may use farmlands to excavate borrow, without the benefit of creating a wetlands mitigation site.

While the COE's change in definition may increase the potential sites we can consider, changes in how we approach mitigation limit the sites we can consider. For example, we now know that meeting the requirement for no net loss of wetlands is not the only important goal. How wetland mitigation sites fit into the surrounding context is important, too. Sometimes an entire wetland system can benefit if, by adding one wetland, the system is better connected. Th[illegible] Osborne mitigation site in Phase II of the project is [illegible] ample not only of the "in-place, in-kind" requirement, but also of a site chosen because it is considered a prior-converted wetland, and one which helps an entire system to be connected.

OTR: How do these changes relate to the original agreement DelDOT made regarding mitigation?

JW: Many decisions and agreements made during the development of the Relief Route are fixed. Our original obligation to mitigate the Relief Route's impacts to wetlands dates back to the project's approval in 1987, and requires us to mitigate impacts in a certain quantity, in a specific manner. Even though this obligation is fixed, wetlands-mitigation policy is evolving. While we're trying to improve on what we committed to do eight years ago, the fact remains that we still have to mitigate impacts of a 46-mile project according to our original [illegible]bligation. ■

For More INFORMATION

TO OUR READERS

The State of Delaware and the consultant team are committed to continuing the citizen-input process during the design and construction phases of the project. We invite you to write to us with questions or comments regarding *On the Road* or to arrange for a presentation to bring your group up to date on the Relief Route.

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